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ENGINEERING SOLUTIONS

Memorandum

To:	San Luis Obispo County	**Date:**	October 2, 2015
Attn:	Jeremy Ghent	**Project:**	2015 Avila Circulation Study and TIF Update
From:	Rosanna Southern, Todd Tregenza		
Re:	Avila Beach Drive Capacity Study	**Job No.:**	25-6462-13
		File No.:	C1917MEM002.DOCX
CC:			

Introduction

The Avila Beach Specific Plan was adopted by the County of San Luis Obispo Board of Supervisors in 2000, and establishes a standard for the level of service (LOS) along Avila Beach Drive. This policy states that the LOS along Avila Beach Drive shall be based on the average hourly weekday two-way 3:00 pm to 6:00 pm traffic counts conducted during the second week of May of each year. This policy was established in 1995 (Ord. 2702), and since then, commercial and residential development has occurred in the Avila Valley and beachfront areas, increasing the population and redefining traffic patterns in the area. The County is seeking re-evaluation of this May policy. This memorandum presents a summary of the analysis of traffic along Avila Beach Drive during certain times of the year, and compared to the 2nd week of May.

Previous related studies include the 1990 Avila Circulation Study by DKS, the 1992 Wilbur Smith Associates (WSA) Resource Capacity Study, and the 1994 County Department of Planning and Building Recommendations. The 1990 Study initially recommended widening Avila Beach Drive to support future growth, but due to environmental impacts no widening is recommended. The 1992 Study focused on summer weekend conditions and explored alternative strategies including changing the LOS policy, transportation system management, changes to the design hour, limiting physical improvement, and reducing development within Avila. The 1994 Recommendations included establishing average non-summer weekday peak hour traffic volumes as the basis for determining the LOS for Avila Beach Drive, and as an interim measure use the 345th highest hour for LOS determination instead of the 30th highest hour.

Data Collection

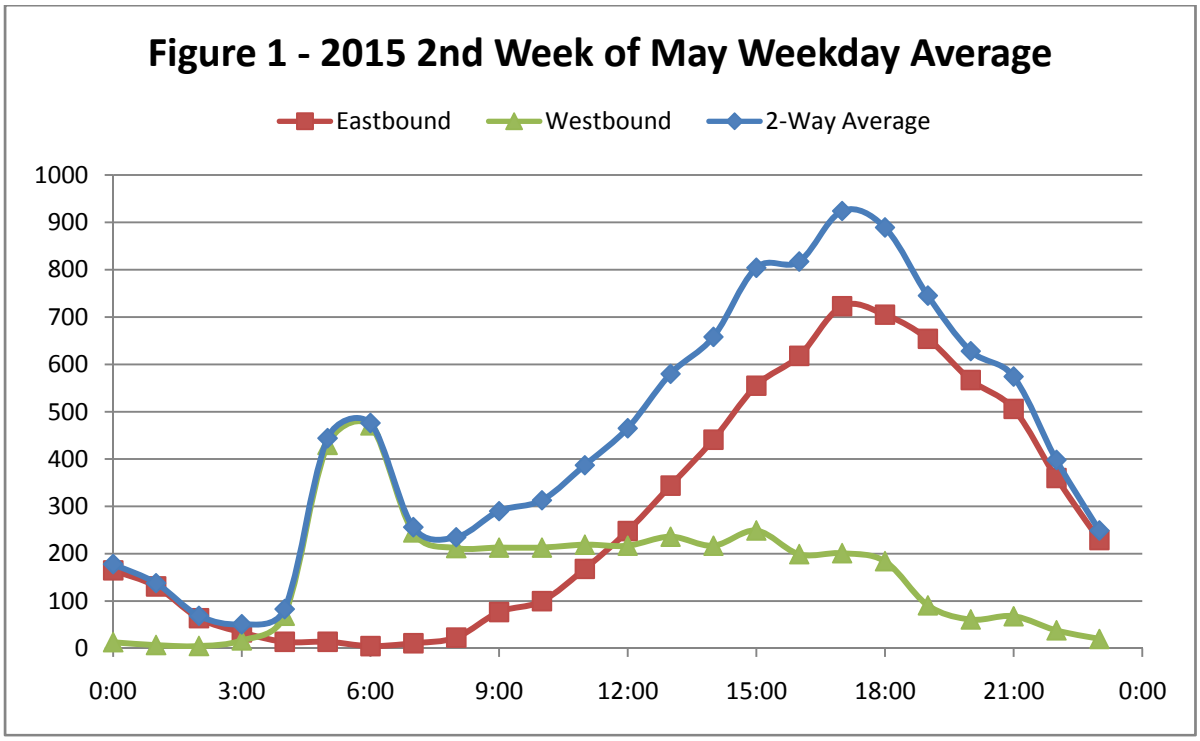
The analysis was done using hourly traffic data collected from March through August, 2015 at a permanent count station located on Avila Beach Drive. The permanent count station was installed in January 2015. Omni-Means also collected hourly counts for one week on Avila Beach Drive September 14-20th, 2014. The permanent count station and the September 2014 counts were collected on Avila Beach Drive west of San Luis Bay Drive.

Avila Beach Drive Capacity Analysis

The analysis compares the 2015 data collected from the permanent count station for the 2nd week of May, the summer weekday and summer weekend averages, the peak for July 4th Holiday weekend, and the September 2014 counts.

2nd Week of May Counts

The data analyzed for the second week of May, 2015 is based off of the permanent count station hourly data for the average weekday which includes data from Tuesday to Thursday. Figure 1 depicts the graph of the weekday average hourly traffic volumes for eastbound, westbound, and two-way traffic flows. The three-day average daily traffic is 10,651 vpd and the 5:00 pm peak hour volume is 924 vph.



2014 September Counts

The September counts were collected on September 14-20, 2014. Figure 2 presents the average weekday two-way daily traffic volumes, Tuesday through Thursday. The average daily traffic (ADT) for the September data is within 4% of the 2nd week of May data, with the September peak hour volume being approximately 25% higher. Table 1 presents the peak hour volume and LOS and the daily volume comparison between the September and May data.

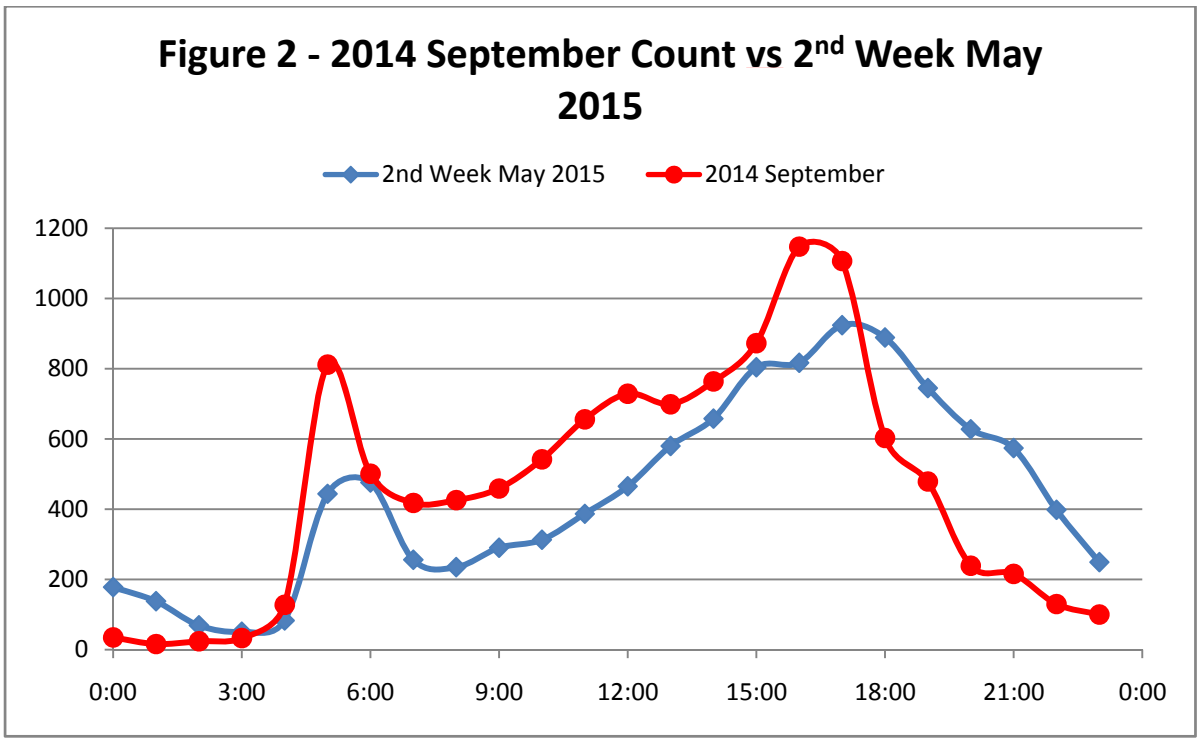


TABLE 1: SEPTEMBER VS MAY DATA

	Sep-14	May-15
PM Peak	1,148	924
Peak LOS	B/C	A/B
ADT	11,136	10,651

Summer Weekday and Weekend Averages

Comparison of the September 2014 counts to the permanent count station data for the summer weekday and weekend averages are based on the weekday average (3-day) Tuesday through Thursday. The summer peak is considered to be between June and August. Figure 3 presents the September weekday average compared to the summer weekday average. The September ADT is within 6%, and the peak hour volume is within 1%, of the summer weekday ADT. Figure 4 presents the September weekday ADT compared to the summer weekend average daily volume, and how the volumes compare to the LOS thresholds C and D. The weekday average for the summer and September data have similar PM peaks, however the September data shows a higher AM peak. The summer weekend traffic shows higher volume than the September weekday peak periods, with a long peak that begins in the late morning and tapers off in the evening.

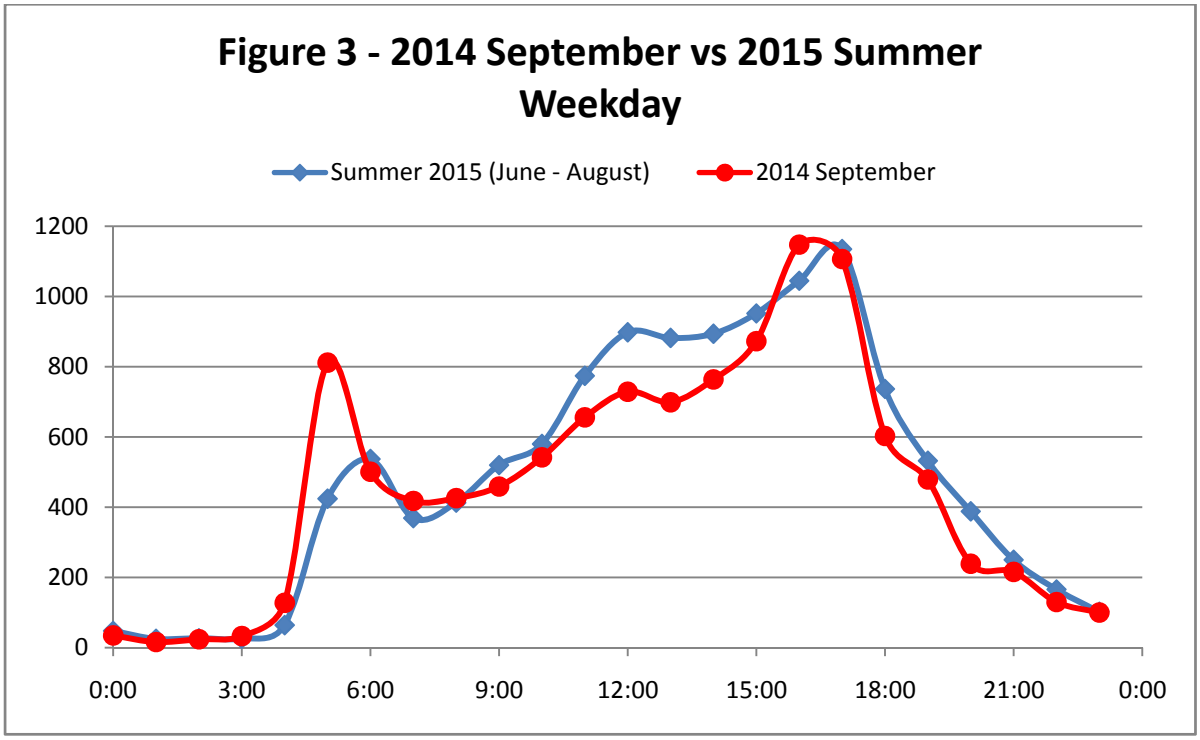


Figure 3 - 2014 September vs 2015 Summer Weekday
Summer 2015 (June - August)
2014 September
1200
1000
800
600
400
200
0
0:00
3:00
6:00
9:00
12:00
15:00
18:00
21:00
0:00

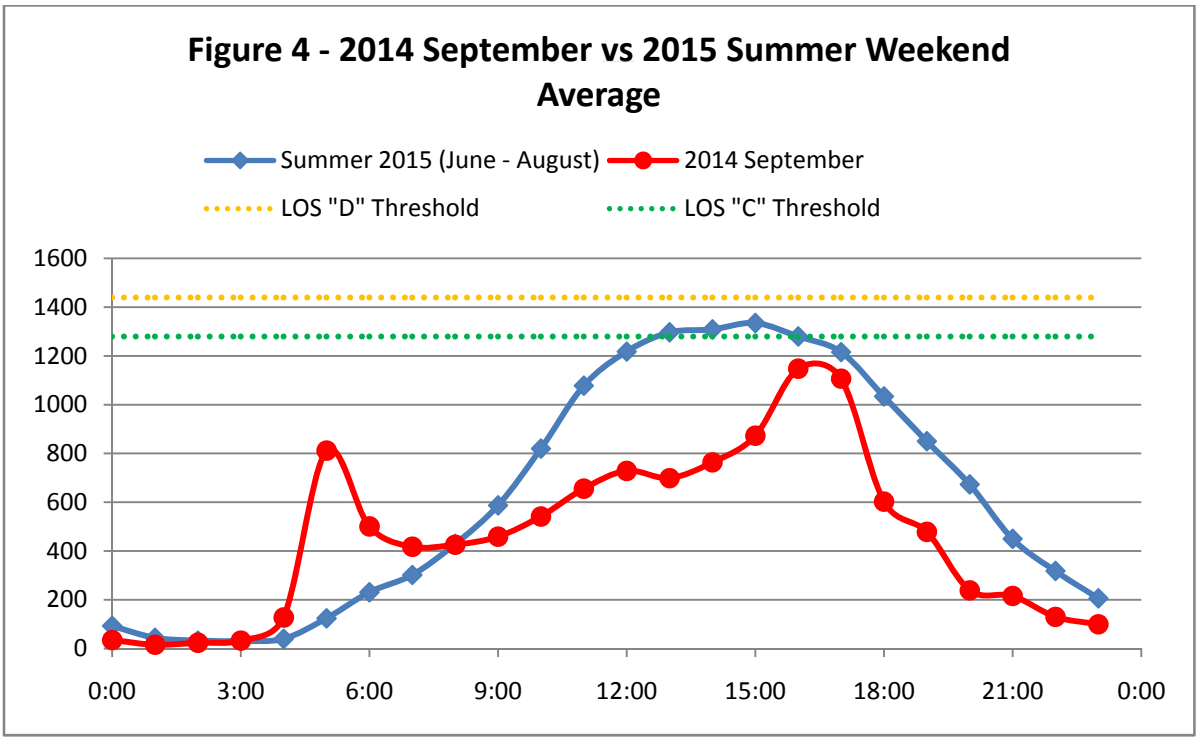
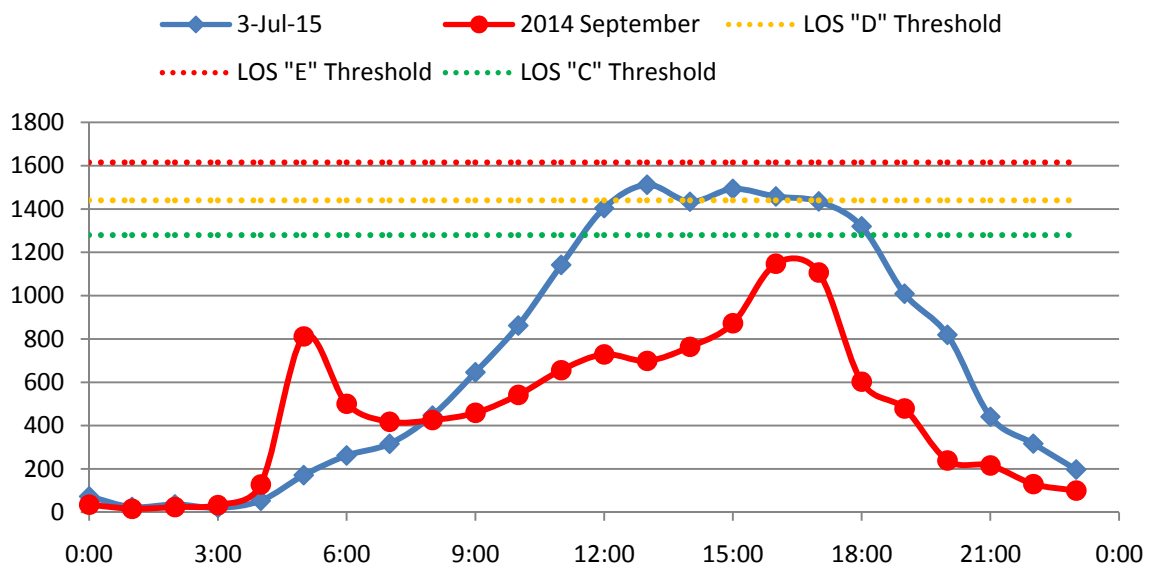


Figure 4 - 2014 September vs 2015 Summer Weekend Average
Summer 2015 (June - August)
2014 September
LOS "D" Threshold
LOS "C" Threshold
1600
1400
1200
1000
800
600
400
200
0
0:00
3:00
6:00
9:00
12:00
15:00
18:00
21:00
0:00

July 4th Holiday Weekend Peak

The July 4th holiday weekend peak was determined to be on Friday, July 3rd, 2015 for travelers coming in and out of the Avila Beach area. Figure 5 shows the daily graph of the average weekday September traffic volumes compared to the July 3rd daily traffic volume.

Figure 5 - 2014 September vs July 3rd
(Friday before Holiday Weekend)



Summary

The Avila Beach Drive permanent count data taken January through August, 2015 indicated that the highest daily total was on Saturday, June 13, with 19,215 vehicles. The highest weekday volume was 17, 410 vehicles on Wednesday, June 17. These volumes represent an LOS F and LOS E, respectively. The summer weekday ADT of 11,981 represents LOS B, while the 2nd week in May ADT of 10,794 represents LOS A conditions. Hourly data between March and August indicates that the highest hour had 1,833 vph on Saturday, June 13 at 3:00 pm, which equates to LOS F. The volume for the 30th highest hour of the dataset was 1,555 vph on Saturday, March 14th at 2:00 pm, which equates to LOS E. The volume for the 345th highest hour was 1,146 vph on Sunday, March 15th at 5:00 pm, which equates to LOS C. The 2nd week in May volumes are lower than the 30th highest hour and the September counts. The Avila Beach Drive is possibly reaching capacity considering the 30th highest hour is at LOS E, and the 2nd week of May is currently at LOS C or better.

A summary of the average weekday daily traffic by week from the Avila Beach Drive permanent count station is presented in Figure 6. A summary of the weekend daily traffic by week is presented in Figure 7. As shown in the figures, very few weekdays cross the LOS 'C' threshold, but weekdays have more intense AM and PM peak.

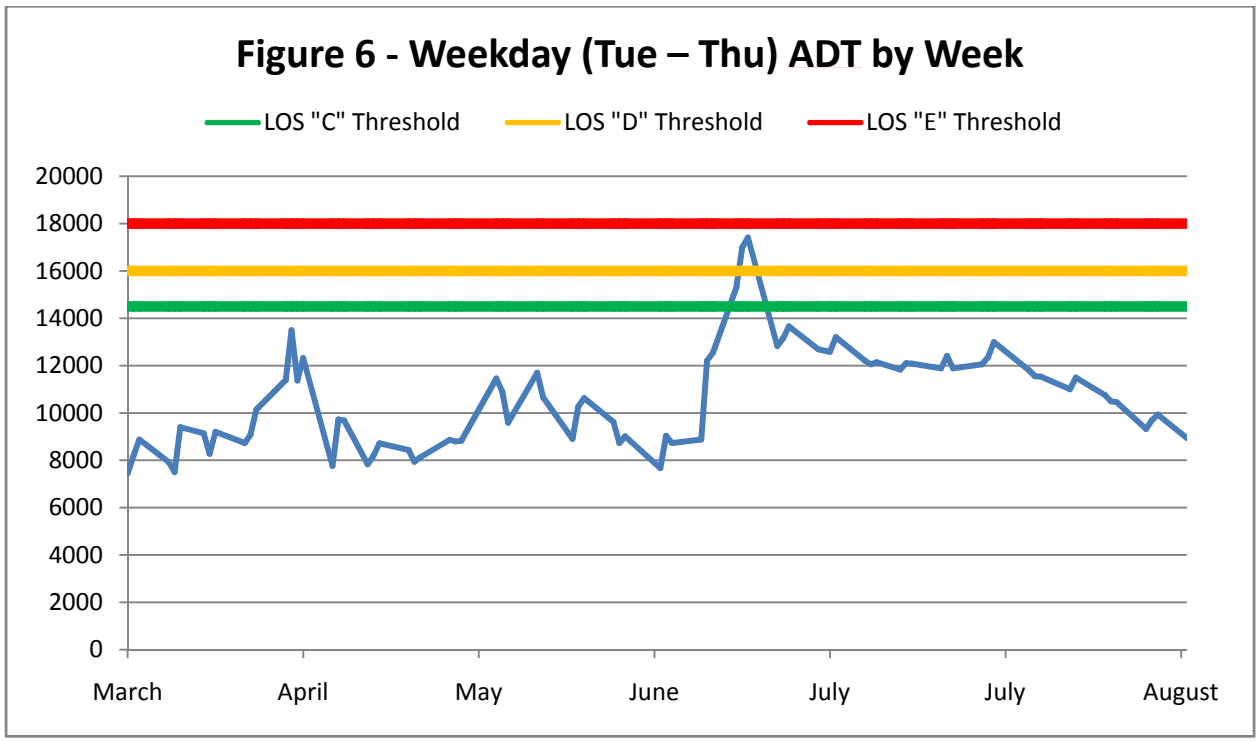


Figure 6 - Weekday (Tue – Thu) ADT by Week
LOS "C" Threshold
LOS "D" Threshold
LOS "E" Threshold
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
March
April
May
June
July
July
August

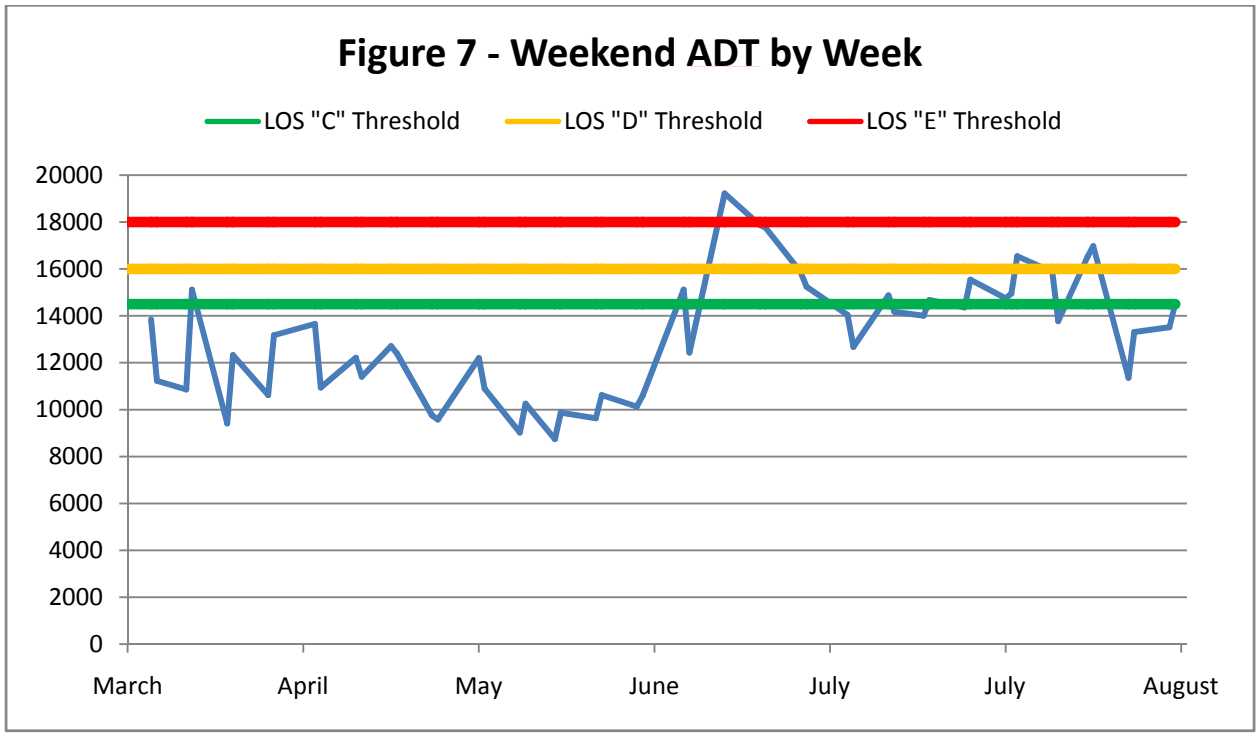


Figure 7 - Weekend ADT by Week
LOS "C" Threshold
LOS "D" Threshold
LOS "E" Threshold
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
March
April
May
June
July
July
August